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(12) United States Patent Schmidt

(54) AGRICULTURAL CROP AND FIELD SPRAYER AND METHOD FOR OPERATING AN AGRICULTURAL CROP AND FIELD

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SPRAYER

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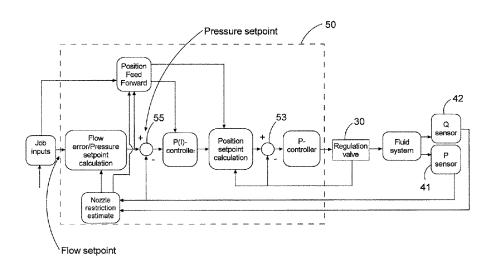
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(57) ABSTRACT

An agricultural sprayer (1) with a pump (20), a plurality of nozzles, a valve arrangement (28) associated with the nozzles and a feed conduit (25). The valve arrangement (28) selectively connects the feed conduit (25) to a bypass conduit (26) or to the nozzles. A return conduit (32) branches off from the feed conduit (25). A regulation valve (30) applies a variable degree of throttling to the fluid flowing through the return conduit. A pressure sensor (41) provides a signal for fluid delivered to the valve arrangement. A flow sensor (42) provides a signal representing the flow in the feed conduit (25). A controller (50) is in receipt of the sensor signals, receives instructions from an operator and controls the regulation valve (30) using the instructions from the operator and available measured signals using feedback control loops combined with a feed forward signal.

11 Claims, 5 Drawing Sheets



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